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(FILE 'HOME' ENTERED AT 14:45:35 ON 31 JUL 2008)

FILE 'HCAPLUS, INSPEC, JAPIO, USPATFULL, USPATOLD, USPAT2' ENTERED AT
14:48:23 ON 31 JUL 2008

L1 108320 S (CRUCIBLE#)
L2 855 S (OPAQUE) (6A) (SIDE(2W)WALL# OR SIDE(4A)WALL#)
L3 70175 S (INFRARED(3W)RADIAT?)
L4 56 S (TRANSPAREN? OR CLEAR?) (8A) (BOTTOM(8A)CRUCIBLE#)
L5 7 S L1 AND L2
L6 77730 S (TRANSPAREN? OR CLEAR?) (8A) (BOTTOM# OR CRUCIBLE(8A)BOTTOM# OR
L7 338 S L1 AND L6
L8 1 S L1 AND L2 AND L3 AND L6

=> d l1 abs,bib

L1 ANSWER 1 OF 108320 HCAPLUS COPYRIGHT 2008 ACS on STN
AB The crystal growth of boron-rich compds. of the Al-Mg-B system from high
temperature Al solns. was studied. The purities of starting materials were as
follows: Al, 4N; Mg, 4N; B, 99.5%. Each of the mixts. with an excess
quantity of Al was placed in an alumina crucible, and heated by
an elec. furnace in an argon atmospheric The crystals were grown by cooling
high temperature aluminum melts, which had been soaked for 2 or 3 h at 1500°C.
The grown crystals were separated by dissolving an excess of aluminum metal
with hydrochloric acid. The boron-rich crystals thus obtained were examined
by Video microscope, SEM, EDX, XRD and chemical anal., etc. The crystals
were AlMgB14, AL.apprx.1.4Mg.apprx.0.4B22 (γ -AlB12 type) and
 α -AlB12.

AN 2008:907528 HCAPLUS
TI Crystal growth of boron-rich compounds in the Al-Mg-B system
AU Tanaka, Minoru; Higashi, Iwami
CS Materials Group, Tokyo Metropolitan Industrial Technology Research
Institute, Tokyo, Japan
SO Kenkyu Hokoku - Chiho Dokuritsu Gyosei Hojin Tokyo Toritsu Sangyo Gijutsu
Kenkyu Senta (2007), 2, 58-61
CODEN: KHCDBB; ISSN: 1881-8676
PB Chiho Dokuritsu Gyosei Hojin Tokyo Toritsu Sangyo Gijutsu Senta
DT Journal
LA Japanese

=> d l5 1-7 abs,bib

L5 ANSWER 1 OF 7 HCAPLUS COPYRIGHT 2008 ACS on STN
AB The bottom of the crucible has, parallel to an axis appreciably
perpendicular to the bottom, properties of thermal transfer much higher
than those of the side walls. The bottom can be transparent with the
infra-red radiation, the side walls being
opaque with the infra-red radiation. The bottom can be out of
amorphous silica, the side walls being out of
opaque quartz ceramics. The crucible can also be out of
graphite. The device can comprise a graphite felt, laid out between the
bottom of the crucible and the means of cooling, and of the
means of compression of the graphite felt. It is thus possible to define
a heat gradient ranging between 8°C/cm and 30°C/cm in the
liquid phase.

AN 2004:876080 HCAPLUS
DN 141:340808
TI Crucible for a device for manufacture of a block of crystalline

material, and process of manufacture
 IN Einhaus, Roland; Lissalde, Francois; Rivat, Pascal
 PA Apollon Solar, Fr.; Cyberstar; Silac
 SO Fr. Demande, 16 pp.
 CODEN: FRXXBL
 DT Patent
 LA French
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	FR 2853913	A1	20041022	FR 2003-4803	20030417
	FR 2853913	B1	20060929		
	WO 2004094704	A2	20041104	WO 2004-FR894	20040409
	WO 2004094704	A3	20041216		
	W:				
	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
	RW:				
	BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
	EP 1613795	A2	20060111	EP 2004-742479	20040409
	EP 1613795	B1	20070103		
	R:				
	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, PL, SK, HR				
	BR 2004009464	A	20060418	BR 2004-9464	20040409
	CN 1774526	A	20060517	CN 2004-80010351	20040409
	JP 2006526751	T	20061124	JP 2006-505792	20040409
	AT 350519	T	20070115	AT 2004-742479	20040409
	ES 2279402	T3	20070816	ES 2004-742479	20040409
	US 20060144326	A1	20060706	US 2005-550456	20050926
	IN 2005CN02671	A	20070831	IN 2005-CN2671	20051017
	NO 2005005454	A	20051117	NO 2005-5454	20051117
PRAI	FR 2003-4803	A	20030417		
	WO 2004-FR894	W	20040409		

RE.CNT 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD
 ALL CITATIONS AVAILABLE IN THE RE FORMAT

L5 ANSWER 2 OF 7 JAPIO (C) 2008 JPO on STN

AN 1997-157082 JAPIO

AB PROBLEM TO BE SOLVED: To provide a quartz crucible for pulling up a silicon single crystal which has a high rate of single crystallization and is increased in an oxygen dissolution quantity.
 SOLUTION: The inside surface side parts of the wall body of this quartz crucible for pulling up the silicon single crystal consist of transparent glass layers 11 containing substantially no air bubbles. The outside surface side parts of the wall body consist of opaque glass layers 12 containing many air bubbles. The IR transmittance of the arbitrary parts inclusive of the sidewall part to the curved part 22 and bottom 21 of the crucible 10 is 30 to 80%. The differences in the IR transmittance at the arbitrary plural points in these parts are <30% and more preferably, the average IR transmittance of the curved part is larger by 5 to 25% than the average IR transmittance of both of the sidewall parts 23 and the bottom 21.

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AN 1997-157082 JAPIO

TI QUARTZ CRUCIBLE FOR PULLING UP SILICON SINGLE CRYSTAL

IN FUKUI MASANORI; TSUJI YOSHIYUKI
PA MITSUBISHI MATERIAL QUARTZ KK
PI JP 09157082 A 19970617 Heisei
AI JP 1995-346493 (JP07346493 Heisei) 19951212
PRAI JP 1995-346493 19951212
SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1997

L5 ANSWER 3 OF 7 JAPIO (C) 2008 JPO on STN

AN 1996-301693 JAPIO

AB PURPOSE: To obtain a silicon single crystal with a high oxygen concentration in high yield by forming an outer wall of a quartz crucible of an opaque glass layer and forming an inner wall part of a transparent glass layer and making the transparent glass layer of a curved part thick and the opaque glass layer thin.
CONSTITUTION: In this quartz crucible 10 comprising an inner surface area side part of a wall body made of a transparent glass layer 11 and an outer surface side part of the wall body composed of a foam-containing opaque glass layer 12, the quartz crucible for pulling up a silicon single crystal has a curved part 22 which connects a peripheral wall part 23 of the crucible to a bottom part 21 and has the thickness of the transparent glass layer ≥ 0.5 mm thicker than that of the transparent glass layer of the other wall body part. The quartz crucible can be produced by using a conventional crucible production method such as a rotary molding method. Especially, the rotary molding method is industrially advantageous since the quartz glass can be produced at a low cost.

COPYRIGHT: (C)1996,JPO

AN 1996-301693 JAPIO

TI QUARTZ CRUCIBLE FOR PULLING UP SINGLE CRYSTAL OF SILICON

IN TSUJI YOSHIYUKI; IWAMI KOJI

PA MITSUBISHI MATERIAL KUOOTSU KK

PI JP 08301693 A 19961119 Heisei

AI JP 1995-128971 (JP07128971 Heisei) 19950428

PRAI JP 1995-128971 19950428

SO PATENT ABSTRACTS OF JAPAN (CD-ROM), Unexamined Applications, Vol. 1996

L5 ANSWER 4 OF 7 USPATFULL on STN

AB The bottom of the crucible has much greater thermal transfer properties, parallel to an axis substantially perpendicular to the bottom, than those of the side walls. The bottom and side walls are formed by materials having the same main chemical constituents. The bottom can be transparent to infrared radiation and the side walls opaque to infrared radiation. The bottom can be made of amorphous silica and the side walls of opaque quartz ceramic. The crucible can also be made of graphite. The device can comprise a graphite felt, arranged between the bottom of the crucible and cooling means, and compression means of the graphite felt. It is thus possible to define a temperature gradient comprised between 8°C./cm and 30°C./cm in the liquid phase.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2006:170894 USPATFULL

TI Crucibel for a device used for the production of a block of crystalline material, and production method

IN Einhaus, Roland, Bourgoin Jallieu, FRANCE

Lissalde, Francois C., Seyssins, FRANCE

Rivat, Pascal, Saint Etienne De Saint Geoirs, FRANCE

PA Apollon Sollar, Paris, FRANCE, F-75017 (non-U.S. corporation)

Cyberstar, Echirolles, FRANCE, F-38130 (non-U.S. corporation)

EFD Induction SA, Seyssinet-Pariset, FRANCE, F-38170 (non-U.S.

corporation)
 PI US 20060144326 A1 20060706
 AI US 2004-550456 A1 20040409 (10)
 WO 2004-FR894 20040409
 20050926 PCT 371 date
 PRAI FR 2003-4803 20030417
 DT Utility
 FS APPLICATION
 LREP OLIFF & BERRIDGE, PLC, P.O. BOX 19928, ALEXANDRIA, VA, 22320, US
 CLMN Number of Claims: 10
 ECL Exemplary Claim: 1
 DRWN 1 Drawing Page(s)
 LN.CNT 312
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 5 OF 7 USPATFULL on STN
 AB Phosphor from the class of the oxynitridosilicates, having a cation M which is doped with divalent europium, and having the empirical formula $MSi_{1.20}sub.2N_{0.72}sub.2$, where $M=Sr_{1-x}Ca_xEu_x$ where $0.3 \leq x \leq 0.72$, with a Ca/Eu ratio of >1 , the oxynitridosilicate having an emission with a dominant wavelength in the range from 555 to 568 nm.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2006:122578 USPATFULL
 TI Highly efficient stable oxynitride phosphor
 IN Fiedler, Tim, Munchen, GERMANY, FEDERAL REPUBLIC OF
 Jermann, Frank, Munchen, GERMANY, FEDERAL REPUBLIC OF
 PA Patent-Treuhand-Gesellschaft fur elektrische (non-U.S. corporation)
 Gluhlampen mbH, Munchen, GERMANY, FEDERAL REPUBLIC OF, 81543 (non-U.S. corporation)
 PI US 20060103297 A1 20060518
 AI US 2005-256567 A1 20051021 (11)
 PRAI DE 2004-10200405139520041021
 DT Utility
 FS APPLICATION
 LREP COHEN, PONTANI, LIEBERMAN & PAVANE, 551 FIFTH AVENUE, SUITE 1210, NEW YORK, NY, 10176, US
 CLMN Number of Claims: 13
 ECL Exemplary Claim: 1
 DRWN 13 Drawing Page(s)
 LN.CNT 579
 CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 6 OF 7 USPATFULL on STN
 AB A method for reducing the concentration of near-surface bubbles in a quartz crucible suitable for growing monocrystalline silicon ingots by the Czochralski method is provided. The method comprises etching the inner surface of the crucible, preferably with an acidic solution, to substantially eliminate or reduce the concentration of near-surface bubbles from the inner surface of the crucible.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2003:34845 USPATFULL
 TI Method of eliminating near-surface bubbles in quartz crucibles
 IN Phillips, Richard J., St. Peters, MO, UNITED STATES
 Keltner, Steven J., Tega Cay, SC, UNITED STATES
 Holder, John D., Lake St. Louis, MO, UNITED STATES
 PA MEMC Electronic Materials, Inc. (U.S. corporation)
 PI US 20030024467 A1 20030206

AI US 2002-210933 A1 20020802 (10)
PRAI US 2001-309645P 20010802 (60)
DT Utility
FS APPLICATION
LREP SENNIGER POWERS LEAVITT AND ROEDEL, ONE METROPOLITAN SQUARE, 16TH FLOOR,
ST LOUIS, MO, 63102
CLMN Number of Claims: 27
ECL Exemplary Claim: 1
DRWN 6 Drawing Page(s)
LN.CNT 542
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

L5 ANSWER 7 OF 7 USPATFULL on STN

AB A crystal puller for growing monocrystalline silicon ingots according to the Czochralski method includes a housing and a crucible in the housing for containing molten silicon. The crucible has a side wall having a transmittance of at least about 80% generally throughout a light wavelength range of about 500 to about 2500 nanometers. A pulling mechanism is included for pulling a growing ingot upward from the molten silicon. In operation, polycrystalline silicon is charged to the crucible and the crucible is heated to melt the polycrystalline silicon for forming a molten silicon melt in the crucible. A seed crystal is then brought into contact with the molten silicon in the crucible and a monocrystalline silicon ingot is pulled up from the molten silicon.

CAS INDEXING IS AVAILABLE FOR THIS PATENT.

AN 2002:230455 USPATFULL
TI Crystal puller and method for growing monocrystalline silicon ingots
IN Phillips, Richard Joseph, St. Peters, MO, United States
Drafall, Larry E., St. Charles, MO, United States
McCallum, Kirk D., Warrenton, MO, United States
PA MEMC Electronic Materials, Inc., St. Peters, MO, United States (U.S. corporation)
PI US 6447601 B1 20020910
AI US 2001-811982 20010319 (9)
DT Utility
FS GRANTED
EXNAM Primary Examiner: Hiteshew, Felisa
LREP Senniger, Powers, Leavitt & Roedel
CLMN Number of Claims: 17
ECL Exemplary Claim: 1
DRWN 3 Drawing Figure(s); 2 Drawing Page(s)
LN.CNT 578
CAS INDEXING IS AVAILABLE FOR THIS PATENT.

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